

A Study on Electronic Textbook Integrated Readers' Theater Teaching to MICE Students' English Learning Effectiveness and Motivation

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Abstract

English is an internationally circulated language; especially, under the incitation of globalization, learning English becomes the extremely important core competitiveness. Using nonequivalent pretest posttest control group design for the experimental research, 204 MICE students of Taiwan universities, as the research objects, are preceded the electronic textbook integrated readers' theater teaching 2×2 experiment. The experimental research is preceded for 16 weeks with 3 hours per week (total 48 hours). The research result show that electronic textbooks outperform traditional hard copy on the promotion of MICE students' English learning motivation and learning effectiveness, readers' theater outperforms traditional didactic English teaching on the promotion of MICE students' English learning motivation and learning effectiveness. According to the results to proposed discussions, it is expected to reduce students' learning load and learning anxiety to further enhance the self-confidence and learning motivation.

Keywords: electronic textbooks, readers' theater teaching, MICE students, learning effectiveness, learning motivation

1. Introduction

English is an internationally circulated language. Millions of people in the world learn English as a second language to result in more population using English as a foreign language than people with English as the native language. It also has English become one of the best communication method internationally [1]. Especially, under the incitation of globalization, learning English becomes the extremely important core competitiveness. In order to cultivate students' English ability, both English cognitive ability and English learning interests are cultivated for students cultivating positive English learning attitude and promoting English learning effectiveness.

Most students currently reflect the dullness of learning English with textbooks; some students even express textbook contents being boring and not attracting the attention that students reduce the English learning motivation and learning effectiveness [2]. A lot of school classrooms are equipped sufficient information equipment and built wireless network to gradually change teachers' instruction and students' learning styles. Especially, under the government's positive promotion of information integrated teaching, many people start to claim that school education should not stay in the time using textbooks [3]. The content of electronic textbooks mainly integrates the teaching content, related pictures, exercise content, and teaching point in paper-

based textbooks. Through the application of information technology, textbooks are integrated into digital teaching materials for more rapidly updating knowledge, real-time providing diversified learning materials, reducing the weight of students' bags, decreasing the consumption of paper resource, and presenting various learning aids, as well as helping teachers more clearly present courses to students so as to promote students' willingness to learn and enhance the learning effect. Electronic textbooks are therefore gradually emphasized by teachers and broadly used in classrooms [4]. It is discovered that purely using electronic textbooks in the teaching process would limit students' learning effectiveness on English listening and reading. In this case, other teaching methods should be matched to enhance students' learning motivation and learning effectiveness. Readers' theater is text-based oral reading and reinforces students' knowledge of English vocabulary and sentence comprehension through spoken interpretation and story communication. In addition to reinforcing students' oral fluency, it allows students, through analysis of dialogue and communication contents, enhancing the cognition and appreciation of drama presented literature [5]. As a result, readers' theater allows students, without being afraid of English environment, exercising repeatedly, enjoying the fun of speaking and reading English, and enhancing English' oral and reading fluency. Accordingly, this study discusses electronic textbook integrated readers' theater teaching to MICE students' English learning effectiveness and motivation, expecting to reduce students' learning load and learning anxiety to further promote the self-confidence and enhance learning motivation.

2. Literature Review

Electronic textbooks could develop the characteristics of information media, and dynamic electronic textbooks combining audio-visual virtual and augmented reality are popular to teachers and students. It results in the boom of e-book and electronic textbook industry, and many schools start to use electronic textbooks in classes for learning [6]. The emergence of electronic textbooks changes past teaching and learning models, induces students' learning interests, and assists students in more easily grasping learning points and completing assignment. Most current electronic textbooks allow teachers applying electronic discs with computer software/hardware equipment and matching projector, electronic whiteboard, computer, or TV screen to display text content, additional materials, and relevant multimedia resources for teaching. Vivid teaching materials could have students better concentrate on learning to further induce the learning motivation and enhance learning effectiveness [7]. Egert et al. [8] discovered in the research that English teachers using electronic textbook integrated English teaching in English courses could enhance students' English learning motivation. Li et al. [9] found out teachers' application of e-book assisted English teaching being helpful for enhancing students' English learning motivation. The following hypothesis is therefore proposed in this study.

H1: Electronic textbooks reveal significant effects on learning motivation.

Electronic textbooks refer to textbooks presenting various resources required for learning with digital or electronic forms to replace the function of textbooks, having electronic textbooks

present various interaction function, multimedia, and teaching resources, integrating textbook content, exercise, and key points, matching projector and screen, and connecting Internet resources to provide teaching data, interactive games, and test & evaluation beyond textbooks [10]. Electronic textbooks therefore present better timeliness than traditional textbooks and could be updated information at any time; the multimedia presentation could enhance students' learning interests and guide teachers practicing teaching strategies to result in better learning effectiveness for teachers and students [11]. Zhang et al. [12] indicated that electronic textbooks could enhance the speed of students and teachers grasping latest and richer knowledge; students could find out common learning interests among peers through multiple electronic textbook patterns and resources to promote the English learning effectiveness. Wang & Gan [13] indicated that electronic textbooks could prompt teachers adopting new methods to guide students' exploration, and students could more easily grasp the academic focus, through interactive resources, to complete assignment and promote learning effectiveness. Accordingly, the following hypothesis is proposed in this study.

H2: Electronic textbooks present remarkable effects on learning effectiveness.

According to the definition and characteristics of readers' theater, readers' theater stresses on students delivering text meaning through oral reading, rather than playing. In this case, students have to carry on practicing actor's lines in the script through various reading strategies to understand the text meaning and express the ideas, concepts, and emotions of characters in the play to audience, so as to present the perfect part. In addition to enhancing students' reading ability, readers' theater provides students with language learning opportunities on listening, speaking, reading, and writing [14]. The teaching method, readers' theater, does not simply activate teachers' teaching methods, but also allows students reducing English learning anxiety by practicing scripts with teachers and classmates. Students not being willing to speak would be willing to repeatedly practice for the perfect performance to enhance the learning motivation [15]. Fouz-González [16] discovered that students participating in readers' theater presented notable differences on English learning motivation due to distinct English learning time and emotion. Jao et al. [17] discovered that adapted scripts of readers' theater could promote students' English learning motivation. Consequently, the following hypothesis is proposed in this study.

H3: Readers' theater teaching shows notable effects on learning motivation.

Readers' theater combines the characteristics of repeated reading comprehension, cooperative learning theory, scaffolding theory, and multiple intelligences theory. A teacher plays the assisting and guiding role in the entire readers' theater and provides proper assistance and guidance according to each student's learning characteristics and English level so that students with worse English ability could enhance the English listening and reading abilities step by step, and students with better English ability could further assist those with worse English level [18]. Besides, grouping allows mutual cooperation and discussion among group members to find out the shortage in learning and learn advantages of others through assistance, learning, and imitation, slowly improve the disadvantages through repeated practice, and eventually

improve the English listening and reading abilities of the group members [19]. Gong et al. [20] discovered that applying readers' theater to cooperative learning could enhance students' English reading fluency, shorten reading time, enhance correct number of reading words, as well as promote pronunciation accuracy, reading speed, oral fluency, sound application, manner, and teamwork of students' English speaking ability. Lo et al. [21] discovered that combining readers' theater teaching with English teaching could deepen the research objects' understanding of script works and comprehensively enhance English learning students' remarkable progress in English listening, speaking, reading, and writing abilities. As a result, the following hypotheses are proposed in this study.

H4: Readers' theater teaching appears significant effects on learning effectiveness.

H5: Electronic textbook integrated readers' theater teaching reveals remarkable effects on the promotion of learning motivation.

H6: Electronic textbook integrated readers' theater teaching presents notable effects on the promotion of learning effectiveness.

3. Research Method

3.1 Measurement of research variable

Learning motivation. According the research of Gong et al. [20], students' learning motivation is measured with the single dimension, including enjoying challenging courses, regarding learning as interests, hobby, others' affirmation, acquiring better scores, passing examinations or evaluations, showing off to others, competing with classmates, acquiring appreciation and attention of elders or the opposite gender, preventing from punishment and scold, avoiding the shame of failure, and entering ideal schools in the future.

Learning effectiveness. According to the research of Lo et al. [21], learning effectiveness is measured with the single dimension, covering test performance, schedule completion time, and term performance.

3.2 Research object and research design

To effectively achieve the research objective and test research hypotheses, nonequivalent pretest posttest control group design is applied to the experiment research. 204 MICE students of Taiwan universities, as the research objects, are preceded the electronic textbook integrated readers' theater teaching 2×2 experimental research. The experiment is grouped into electronic textbooks (electronic textbooks, traditional hard copy) × readers' theater teaching (readers' theater teaching, traditional didactic teaching) for the 16-week (3 hours per week for total 48 hours) experimental teaching research.

3.3 Analysis method

Analysis of variance is applied in this study to discuss the effects of electronic textbooks and readers' theater teaching on learning motivation and learning effectiveness, and the effects of electronic textbook integrated readers' theater teaching on learning motivation and learning

effectiveness are further understood.

4. Finding and Discussion

4.1 Variance analysis of electronic textbooks to learning motivation and learning effectiveness

Analysis of variance is used for discussing the difference of electronic textbooks in learning motivation and learning effectiveness. Table 1 shows notable differences of electronic textbooks and traditional hard copy in learning motivation. Electronic textbooks (3.83) presents higher learning motivation than traditional hard copy (3.41) that H1 is supported. Electronic textbooks and traditional hard copy reveal significant differences in learning effectiveness; electronic textbooks (3.75) appear higher learning effectiveness than traditional hard copy (3.36) that H2 is supported.

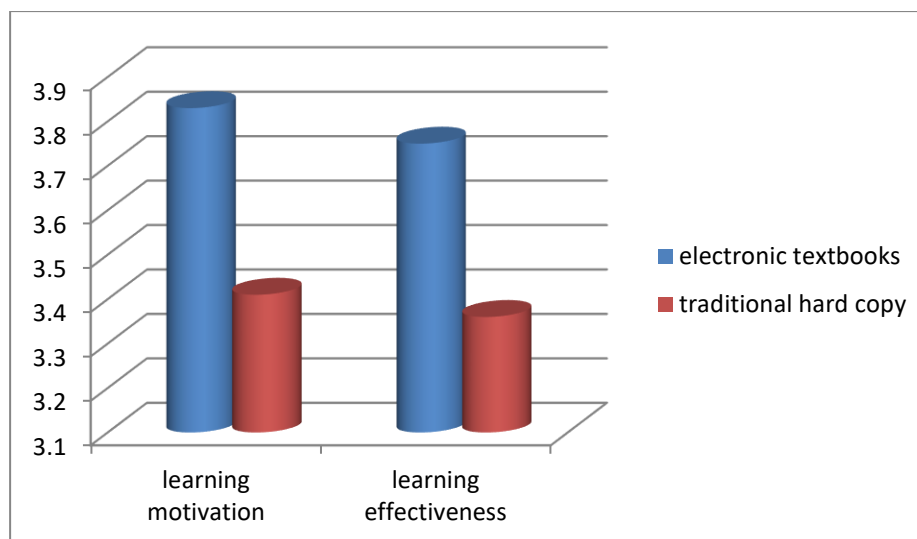
Table 1. Variance analysis of electronic textbooks

variable		F	P	Scheffe post hoc
electronic textbooks	learning motivation	13.172	0.000**	electronic textbooks>traditional hard copy
	learning effectiveness	18.633	0.000**	electronic textbooks>traditional hard copy

* stands for $p < 0.05$

** for $p < 0.01$.

Figure 1. Variance analysis of electronic textbooks



4.2 Variance analysis of readers' theater teaching to learning motivation and learning effectiveness

Analysis of variance is utilized for discussing the difference of readers' theater teaching in

learning motivation and learning effectiveness. Table 2 reveals remarkable difference of readers' theater teaching and traditional didactic teaching in learning motivation; readers' theater teaching (4.11) presents higher learning motivation than traditional didactic teaching (3.52) that H3 is supported. Readers' theater teaching shows significant difference from traditional didactic teaching in learning effectiveness; readers' theater teaching (3.92) appears higher learning effectiveness than traditional didactic teaching (3.47) that H4 is supported.

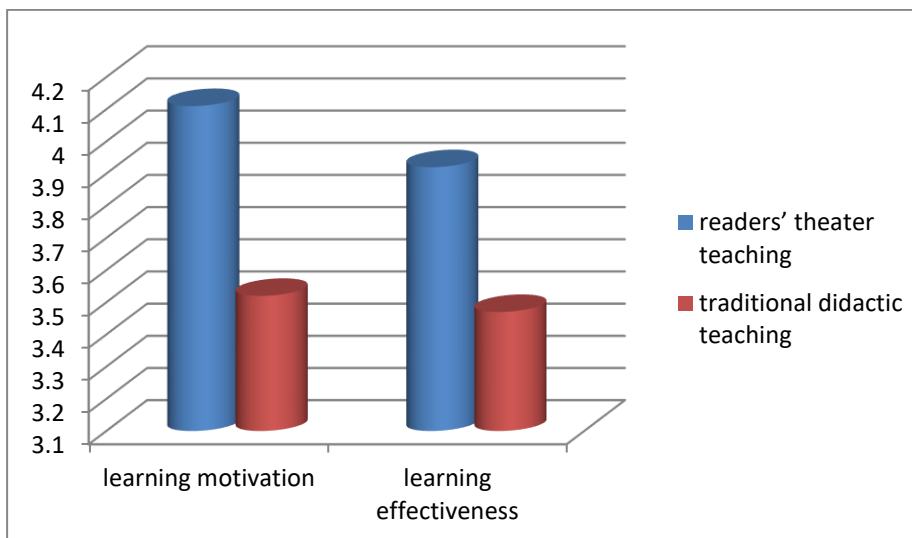
Table 2. Variance analysis of electronic textbooks

variable		F	P	Scheffe post hoc
readers' theater teaching	learning motivation	21.736	0.000**	readers' theater teaching>traditional didactic teaching
	learning effectiveness	27.583	0.000**	readers' theater teaching>traditional didactic teaching

* stands for $p < 0.05$

** for $p < 0.01$.

Figure 2. Variance analysis of electronic textbooks



4.3 Effects of electronic textbook integrated readers' theater teaching

Analysis of variance is used for discussing the difference of electronic textbook integrated readers' theater teaching on learning motivation and learning effectiveness, and two-way analysis of variance is applied to discuss the interaction of electronic textbooks and readers' theater teaching to verify the promotion of learning motivation and learning effectiveness. The interaction, Table 3, reveals that electronic textbook integrated readers' theater teaching presents the highest learning motivation and learning effectiveness that H5 and H6 are supported.

Table 3. Variance analysis of electronic textbook integrated readers' theater teaching on learning motivation and learning effectiveness

variable	learning motivation			learning effectiveness		
	F	P	Scheffe post hoc	F	P	Scheffe post hoc
electronic textbooks	13.172	0.000*	electronic textbooks>traditional didactic teaching	18.633	0.000*	electronic textbooks>traditional didactic teaching
readers' theater teaching	21.736	0.000*	readers' theater teaching>traditional didactic teaching	27.583	0.000*	readers' theater teaching>traditional didactic teaching
electronic textbooks*readers' theater teaching	33.252	0.000*	11>12>21>22	37.186	0.000*	11>21>12>22

* stands for $p < 0.05$

** for $p < 0.01$.

5. Conclusion

This experimental research discusses electronic textbook integrated readers' theater teaching to MICE students' English learning effectiveness and motivation. The results reveal that electronic textbooks outperform traditional hard copy on MICE students' English learning motivation and learning effectiveness, readers' theater teaching outperforms traditional didactic teaching on MICE students' English learning motivation and learning effectiveness, and electronic textbook integrated readers' theater teaching presents the best promotion on MICE students' English learning motivation and learning effectiveness. The research results show that the course design of e-book integrated readers' theater matching teachers' guidance and assistance ensures MICE students' willingness to present themselves with English, through performance, on the readers' theater performance and further induces the English learning interests and motivation to promote the English learning motivation and English learning effectiveness. Teachers, in the future, could use e-book integrated readers' theater as a part of English teaching courses for English curriculum design, focus on grouping & practice, groups taking turns for reading, real-time reading in groups, cooperative reading in groups, and feedback & encourage so that MICE students could enhance rapid, correct, and efficient reading through performance, promote English reading fluency, and reinforce English listening and reading abilities.

Suggestion. The research results reveal that MICE students' English learning motivation and English learning effectiveness could be enhanced through teaching methods of multimedia assistance, electronic whiteboard, and readers' theater. For this reason, teachers intending to promote MICE students' English listening and reading abilities could well apply existing

teaching resources with teaching methods of multimedia assistance, electronic whiteboard, and readers' theater to English courses and help MICE students increase English speaking and reading opportunities. It could promote learning efficiency and enhance MICE students' self-confidence and willingness to learn English. With readers' theater, MICE students, according to the played topics, are grouped for practicing. Richer teaching resources and mutual communication and negotiation among MICE students are required. Frequently discussing and sharing encountered problems and required assistance with colleagues for the practice of readers' theater and professional opinions could help teachers' professional growth and enhance the situated teaching quality. More exchange between teachers practicing readers' theater and other colleagues with regular opinion exchange among teachers on the practice of readers' theater could increase the success opportunity in the practice of readers' theater. Teachers, when making teaching plans or designing teaching contents, have to consider MICE students' learning motivation to English. When most students appear low motivation on English learning, English teachers could apply electronic textbook integrated readers' theater to English teaching in order to enhance MICE students' English learning motivation. On the contrary, when most students show higher English learning motivation, paper-based textbooks for traditional English teaching could be continuously used to maintain MICE students' English learning motivation. Nevertheless, when most students reveal moderate English learning motivation, paper-based teaching with the assistance of electronic textbook integrated readers' theater could be utilized for MICE students promoting English learning motivation with different learning styles.

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